MULTIMEDIA UNIVERSITY ®

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 3, 2022 / 2023**

## FBDT1014 – DIGITAL TRANSFORMATION TECHNOLOGIES

(All Sections / Groups)

2 OCTOBER 2023
9.00 a.m – 11.00 a.m
(2 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This question paper consists of **2 pages** (excluding cover page) with 4 Questions only.
2. Attempt ALL questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

## QUESTION 1 [25 Marks]

a. Today, digital systems are all around us, whether we see them or not: traditional desktop computers, laptop computers, smartphones, tablets, you name it; digital systems are all around us, whether we see them or not. Discuss the nature of digital systems in modern organisational success and failure.

(5 marks)

b. Discuss the ethical concerns associated with information privacy and explain how computer ethics affect the use of information systems.

(5 marks)

c. What is the Internet of Things and describe the fundamental components of an IoT System.

(15 marks)

## QUESTION 2 [25 Marks]

a. The cloud offers a variety of services. Some customers only need access to specific software, while others want more control and the ability to run their preferred software on a cloud server. Describe the **THREE (3)** cloud service models. Which one provides the most flexibility to the customer, and why.

(15 marks)

b. Servers, clients, and peers are the three distinct roles that computers in a network play. Distinguish between servers, clients, and peers.

(6 marks)

c. Social media has had an enormous impact on businesses. Explain briefly the role of social media in an organization.

(4 marks)

## QUESTION 3 [25 Marks]

a. Organizations can typically choose between custom and off-the-shelf software when deciding to deploy new systems to support their operations in order to gain or maintain a competitive advantage. Distinguish custom software from off-the-shelf software. Describe **TWO (2)** major advantages of custom software over off-the-shelf software.

(10 marks)

**Continued...**

b. Outsourcing is the business practice of hiring a third party to perform services or create goods that were previously performed in-house by the company's own employees and staff. Outsourcing is a practice that is commonly used by businesses to save money. Give **THREE (3)** justifications for why businesses might outsource some (or all) of their information system services.

(6 marks)

c. Spyware, spam, and cookies are other threats that do not remove or destroy data. Distinguish between spyware, spam and cookies.

(9 marks)

**QUESTION 4 [25 Marks]**

a. The blockchain is a decentralized distributed database of immutable records. The technology was discovered with the invention of bitcoins, the first cryptocurrency. There are many companies using it because it is a trusted approach. Discuss **TWO (2)** reasons why blockchain is considered a trusted approach.

(10 marks)

b. Data security always matters. Encryption is basically an approach that helps organizations to keep their data secure. Explain **TWO (2)** roles of encryption in the blockchain.

(5 marks)

c. Richard owns a chocolate factory. He had been thinking about expanding his operations to global markets, but in order to do that, he needed the capital to expand the capacity of the factory and hire more staff to manage the expansion. He thinks crowdfunding could be a way to raise the necessary capital. Should Richard opt for an equity-based crowdfunding platform or one that is based on a system of rewards? Discuss and Justify.

(10 marks)

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